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COURSES PREPARATORY TO COLLEGE.

BY PRESIDENT PORTER, OF YALE COLLEGE.

The course preparatory to college is, I regret to say, largely confined to special schools. This results especially in two disadvantages: 1. A division into clearly defined classes is introduced even in childhood between those who should stand as much as possible upon a common footing. 2. Those withdrawn thus to select schools have their attention diverted into a narrowed range of acquisition. When there should be a general training in the use of correct English, in the fundamentals of Mathematics, in Geography, in the facts and relations of Natural History in its several departments, and in the outlines of at least one modern language, the lad is put at special and narrowing work. I mean to say, in other words, that Latin and Greek are begun too early and pursued too exclusively, and that time which, during a certain interval, would be more economically spent in wider range, is almost wasted by the present system.

There is required of an educated man a background of common knowledge, which the college-bred man rarely possesses for this very reason. There is needed, too, a foundation in correct intellectual habits, which the public school, with its wider view, is better fitted to give than the mere grammar school. There is needed, not less, a foundation in common sense, an acquaintance with common things, and common people, and with the common aims and hopes of the masses, which the segregation of the prevailing method prevents. I look back to the years spent—unprofitably enough, indeed, and under methods barbarous enough—in a certain old red schoolhouse, as among the most valuable of my life for this very reason, and I believe that many will unite in like testimony.

I will first speak of certain general disadvantages of the method of segregation. And, first of all, as special schools are now constituted, both trustees and teachers strive toward high pressure. The result is that lads are kept almost exclusively on the dead languages, and on the routine of these during a period which exerts so vital an influence over them that spontaneity of growth is seriously checked. A direct outgrowth of this is the extreme weariness of such a course. Who does not pity, from the bottom of his heart, the lad who, from ten to thirteen, is bound down to his Latin grammar, his Latin exercises, his Latin translations? And if we pity him, why should we not help him? The trouble is that his work has no connection with a living language, and that not even what connection might be brought out is shown. The process should be carried on side by side with an intelligent study of English, and it should never happen that only after years of study it should dawn on the pupil's mind that the old dead tongue is similar in structure to the language of his every-day life. Work so exclusively at specialties at so early a period is full of disadvantages and full of loss.

The high-pressure and the hard work result, thirdly, in mechanical habits of thought. The book is studied to be committed, and committed to be recited, and retained to be examined on, and not as intelligent knowledge which is to form part of the furnishing of a working mind. Now I concede that as our system now stands, we can expect no immediate or thorough change to avoid these difficulties. In some of our larger cities boys may be successfully fitted for college entirely at the public schools, but not in the smaller towns and in country places. I therefore take the position that our public schools should be brought as nearly as may be into such efficiency that they may do much of the preparatory work, and that the young should be kept in them as long as may be, while some dependence is yet placed on private instruction, or on select or funded schools for the final touches of academic preparation.

I wish to speak next of certain evils of preparatory schools, as such, and I premise that many of them are natural, deep-rooted, and almost incapable of thorough eradication. This, however, should not make us close our eyes upon them, but we should rather strive the harder and the more intelligently for their overthrow. The first evil of preparatory schools which I would mention is that of their tendency toward a premature use of the gen-

THE FAVORITE LIST OF SCHOOL TEXT-BOOKS.

eralizing faculties. How often one enters a family of bright children, one of whom is singled out and praised by parents and friends as the child of promise—a kind of oracle. And the great point emphasized is that the child "is never satisfied unless he knows the reason for everything." Often, indeed, does such a child fulfill fond expectations: but how often, on the other hand, does this brilliant quality, exercised before the mind is ripe, lead to queries and speculations which are the mental ruin of the child.

Now, our methods of classical study deal too much—in the case of the schoolboy—with the philosophy of paradigms, and of phonetic and other changes. We haven't the good old paradigm to learn, but the boy must make his paradigm by metaphysical rules for which he is as yet no wise ready. I should be one of the last persons, from the nature of my studies, to object to generalization, and I do not; but I do protest against teaching a mind the generalizing faculty before it has normally grown to it. What the mind needs to acquire first is a basis of facts—facts of the rudiments of mathematics, geography, history, the natural sciences, the great events and leading thoughts, which may prove both material for later inferences, and which may stimulate the emotions and keep the soul at a high and healthful pitch. For this reason the memory is so tenacious early, as if to indicate that it should be chiefly used at first. And our arid methods of classical study in the schools are to be condemned in that they are arid, and lay little good foundation of the kind which I have outlined. Now I grant that there is a method of constructing text-books and of teaching which involves the highest generalization and the highest philosophy—and those we should have. But the secret—in book and teacher—should not be unvailed to the child; the child should be the unconscious pupil of a hidden, but profoundly based and subtle method, which, so used, may be the making of him.

A second pernicious feature of our preparatory schools is the growing tendency to trust in special examinations. These derive much prestige from the prevailing impression that they are used with great success in French and German schools. But we are to notice that French and German instruction—as any who have been under such teachers may readily judge—is by dictation, the pupil spending much of his time in copying into a book what he is expected to reproduce the next day. The pupil used to this, can manifestly thrive better under the written examination system than can one under the American system, which depends largely on text-books.

Another thing which gives the system public favor is the fact that the newspapers are constantly insisting on written examinations and the like, as the true method of deciding competitions for official positions. Now I grant that the method of written examinations secures certain advantages which can hardly be found in any other single system. I also concede that it affords a discipline of nerve, of power, of expression, and of expeditious work, which, at some time in an educational course, must be highly valuable. But I do claim that it is in many respects unfair; that the poor scholar, from a certain facility, may pass creditable muster; that the real scholar, for lack of that facility, may suffer undeservedly. I ask anybody who is accustomed to read examination papers, if he does not always read them with eyes enlightened by a knowledge of the scholar's real attainments, and if he does not always detect discrepancies.

A third pernicious feature of our preparatory school, is a tendency to rely on system and method, and the various paraphernalia of a well regulated institution, to the exclusion of individual and personal effort. Easy, easy indeed, is it to ask routine questions, to record the result in a marking book, to clinch the week's work by a weekly examination, and a term's and a year's work in like manner; far easier than to put questions in such a fashion as to find whether the scholar has got at the essence of knowledge, or in such fashion as not only to reach the ear of the questioned pupil, but to thrill with subtle and suggestive power the whole class. But the real power lies in oral instruction; in the living and vivifying force of the contact of mind with mind. Oh! there is no such power of man over man as that of the mind, thrilled with truth, and imparting it with all the force of its individuality! I would not be a teacher, if all my work were to turn the handle of never so delicate an organ, that went by machinery. I would not be a teacher, if all my work was to preside at recitations, put well-rounded questions, and conduct skilfully-questioned written examinations.

What I have said has been put in fragmentary form, but it has been the result of reflection, and in this informal manner I present it to you for your thoughtful consideration.

The inventory of the estate of the late Samuel Williston, of Easthampton, foots up $1,015,111, and the residue that was to go to Amherst College, after all the other bequests were paid, will amount to $288.000.

THE LECTURE *VS.* THE TEXT-BOOK.*

BY EDWARD C. WINSLOW, CLINTON.

The curriculum of studies in most of our high schools may be divided into *four* general departments, viz.: Mathematics, Language, Natural Science, and a miscellaneous department, including History, Rhetoric, Constitution of U. S., Mental and Moral Science. There is also a department in many of our schools, and I trust will soon be found in *all*, which includes Music, Drawing, and Penmanship.

Let us see now whether instruction can be imparted with greater advantage in any of these departments by a system of *lectures* than from the text-book; and if so, what the advantages may be. Let us consider in the first place, and throughout, that we are not discussing the subject for German universities but for *our* schools as they are found.

And here let us understrnd what we mean by *lectures.* As the term is sometimes used in our schools and colleges. it refers to *oral instruction* given in connection with recitation from the text-book. Thus we find in one of our college catalogues this statement: "Lectures on the Metaphysics through the term in connection with the Text-book." Now these lectures were simply discussions of various topics as they were taken up in the book, illustrating more fully and explaining more satisfactorily, as difficulties presented themselves to members of the class. Taken in this sense, I say most emphatically that every teacher in our High Schools, yes even in our lower schools, ought to employ the lecture system. Every teacher should be brimfull of the subject he or she is teaching; by previous reading, study, and research he should prepare himself with information bearing upon the recitation before him, which is not found in the book used by the class, and which information the class will not obtain unless he imparts it to them. *All* of our *oral* instruction thus rightly comes under the head of lectures. But I suspect that when this subject was assigned, a different view of it was anticipated; in fact the very wording of the subject implies something more. Lecture *versus* the Text-book. Lecture *against* the Text-book. Lectures on one hand without the text-book, and the text-book on the other hand without the lectures.

This brings us to the system adopted in our colleges and professional schools where the instructors, either for the want of a satisfactory text-book, or for want of time to pursue such a book, select, arrange, combine, and condense such material as they may consider most important and profitable, and present it to the class in the form of a lecture, sometimes requiriug it to be learned and recited at the next exercise, and sometimes leaving it, when once presented, to be remembered or forgotten as the fates may direct. Taking this as the scope of the lecture system, we are now prepared to ask—Will such a system operate with advantage in our High Schools? and shall we allow this to supersede the text-book in any branch?

Taking the first department of study already noticed, we ask—can the lecture be substituted for the text-book in mathematics? I need only ask such a question here, for it is manifest to every one that no system of lectures can give so thorough knowledge of Arithmetic as the careful, earnest, thoughtful *study* of some good texr-book. And the *discipline* of *mind* which we regard of *first* importance in the pursuit of this branch is almost entirely lost, if we remove the text-book and the *study* of it which is presupposed. I have sometimes taken an advanced class reviewing Arithmetic, and without any book specified, assigned to them topics, e.g.: Division, Common Fractions, Discount, or Exchange, giving them problems under each rule to solve before the next recitation, and calling for an explanation of every principle as we came to it, thus making it very practical, and in one sense independent of the text-book. This has always been successful, yet it hardly comes under the general acceptation of a *lecture*, and the class was more or less dependent continually upon some text-book.

Another argument against removing the text-book, is the unnecessary increase of labor brought upon the teaeher to prepare matter for each recitation, which is already arranged in our best text-books better than a large majority of our teachers would prepare it.

Our teachers have enough to do even if they make use of all the *real* helps that can be provided. What has been said of Arithmetic applies equally well to Algebra and even more forcibly to Geometry, Trigometry, and Book-keeping. Hence for these three reasons already given, viz: 1st, that the pupils gain a more thorough knowledge of Mathematics and obtain it in a more systematic form; 2d, that the discipline of mind acquired in the *study* of Mathematics must be so much greater than that resulting from *listening* to lectures on Mathematics; and 3d, provided our teachers as a

* Read at the Annual Meeting of the Conn. State Teachers' Association, Oct. 23, 1844.

rule could prepare exercises equally as good as those in the best text-books, and could secure the same amount of study upon them, so much would the labor of the teacher in preparing and the pupil in transcribing the exercises be increased, that I say decidedly: Hold on to the text-book in Mathematics.

In the next Department—Language—we find the text-book just as necessary.

The study of any *foreign* language in our schools must of course be pursued to a great extent from books,—Latin and Greek entirely, while but few classes are favored with French and German, Italian or Spanish teachers competent to instruct them otherwise than by the routine method of the text-book. The English language, of all languages in our schools, I think is taught in the most unsatisfactory manner if we regard its comparative importance; and we hail with joy some recent publications prepared to give direction to younger scholars and interest them in the study of their own language. It also bodes well for the future that so many of our teachers feel that the English Language does not receive that attention at their hands which it should, and are looking about to catch the first glimmer of improvement. Now in teaching scholars in our High Schools who are supposed to be well-versed in English Grammar and the general construetion of the language, I hold that much *oral* instruction should be given adapted to the character of the class. However, text-books are at hand upon the etymology of words, others upon composition, style, and the correct use of language, so that in very many of our schools nothing more or better could be provided. When the study of the Literature of the English language comes up we must not do away with the text-book unless we can substitute something better; and what would a majority of our teachers fall back upon if they had recourse to no text-book? Yet while I would retain the book for class use I would by no means confine the class to it, but with great profit may the teacher give an occasional lecture upon the derivation of words, the different kinds of composition or style, the history of the language, the work of some author or the author himself. In this way will the class feel that the subject is a live one, and the words of the living teacher will corroborate and vivify the language of the book already learned.

The department of Natural Science opens a broader field for the lecturer. Every teacher of these sciences in our High Schools may add greatly to the interest and benefit of his class by presenting an occasional lecture upon the subjects already taken up. Mark—I say upon *subjects already taken up*, for I believe the class so much better prepared to appreciate a lecture after having *studied* the subject themselves, that I would in no case, unless it be *very* extraordinary, neglect the text-book. What do you gain in *material* by omitting the book and giving your lectures? What you have to present is mostly a compilation from different authors expressed in accordance with your own views. But very few of our teachers are able to devote themselves to the investigation of a subject sufficiently to present an independent and original system to be adopted by the class. Now with such a variety of books as we have upon every science, presenting every side and phase, can you not select one which will in the main coincide with your views and express what you would teach a class? Then when we consider the item of time—that to give the class a lecture each day, so that they can secure notes from which to learn it, occupies twice or thrice the time it does to recite the same, we are led to believe that the wiser course is to adopt some book from which to select what the class shall learn, and to spend the time assigned to the class in illustrating, explaining, and discussing what has already been learned and recited, and make the lecture not a *substitute* for the book but *complementary* to it. The only exception I would make to this is where the class for some good reason has but a brief time to spend upon a study, and the material can better be selected and condensed by the instructor and presented from his own words than from the book. But while I cling so persistently to the book I would not be satisfied with that as I have before said. How much a teacher can find to give a class in Physical Geography that is not contained in any one text-book! so in Physiology. In Natural Philosophy, Natural History, Chemistry, and Mineralogy, lectures illustrated by experiments and specimens, are absolutely essential. The study of the book amounts to very little without these. Pupils can walk much better among these principles by sight than by faith. Having lectures given in this manner and a text-book for study and reference the instruction ought to be very satisfactory.

What I have already said applies equally well to History, Rhetoric, Constitution of the United States and Metaphysics, and thus to all the branches taught in most of our High Schools. And what is our conclusion? It is this: that the question ought not to read Lecture *versus* Text-Book' but

Lecture *cum* Text-Book—Lecture *together with* the Text-Book. Let us, therefore, repeat the arguments on each side which have already been more or less touched upon, and see if this conclusion is not legitimate. The advantages of the lecture are:

1st. The class obtain the benefit of the study and research of the instructor in a condensed form. We expect the instructor much better informed of the sources whence he may draw any desired information than the class; that he can select more readily and arrange more systematically the facts which are of importance; and adding the result of his own investigation, may thus bring within the scope of one hour what would have taken each one in the class days to obtain; and if we multiply this saving of time on the part of one by the number in the class we can realize the force of this first argument,

2d, The words of the living teacher presented by him to the class, are usually received with more interest, and retained with more profit, than the language of the book. We all feel more interest in listening to a sermon or lecture if delivered by the writer thereof, than if read to us by a good old deacon or if read by ourselves. So pupils feel the force of the living word far more than the dead language, as it is to so many, of the text-book.

3d. The time of study in our High Schools is so short that many branches must be hastily passed over. We cannot omit them altogether, and we cannot prolong the time spent in school, so it becomes a matter of importance to secure as much as possible in a brief time. In some branches this can he done by lectures, as we have already seen.

I have previously given three advantages of the text-book and its use in Mathematics, which may be restated here as having a general application. 1st. Pupils gain a more thorough knowledge and obtain it in a more systematic form from the book than from such lectures as a large majority of our teachers would give them. 2d. The *discipline* of mind acquired in the *study* of any branch is so much greater than that resulting from *listening* to any dissertations upon it, that we must have the *study*; whether that will be secured as well by lectures as from the book, you can decide.

It is acknowledged that Mathematics and the languages are the great builders of *mind*; that the study of these imparts strength, clearness, precision, logical order, and a keenness of perception that is not derived from other branches. As we have already seen, these two departments of study are most of all closely allied with the book, and in none would the substitution of the lecture be attended with greater loss. Provided our teachers, as a rule, could prepare exercises equally as good as those in the best text-books, and could secure the same amount of study upon them, so great would be the expense of time, and so much would the labor of the teacher in preparing and the pupil in transcribing the exercises be increased, that unless there is some advantage outweighing these disadvantages we must cling to the text-book.

Another argument against the lecture system is the difficulty experienced by the class of securing the lecture either for *learning* or for future *reference*. There are two methods in which pupils strive to secure a lecture: 1st, by taking as copious notes as possible, and 2d, by taking no notes at the time, but relying upon the memory. Difficulties beset both methods. If one is striving to write as fast as the instructor reads he will catch at the main points as best he can, having no time to think of their relation or connection, but before he has written one, another has been given which must be omitted or abbreviated in a damaging manner, and so his notes are at best quite defective; and more than all this, he was so intent on his notes in the class-room that when he attempts to write out his briefs he finds that his knowledge of the lecture is pretty nearly circumscribed by his notes. How are these to be compared with the fullness of a text-book?

Other pupils wishing to avoid this difficulty will not take notes in the lecture-room, but listen attentively, and remembering all they can, go directly to their seats and write it out. But with the most retentive memory this cannot be as complete as the lecture itself, and for future reference of course can not be compared with the text-book.

Again—the scholars in many of our schools are of such an age that the mind has not the maturity requisite to derive the benefit from lectures which students in colleges, seminaries, and higher institutions would obtain. They are boys and girls, and as such we must take them, adopting our instruction to their capabilities.

I am well aware that our schools differ, and that the system of instruction which would be a success here in New Haven would be a failure in other schools of the State, but I have endeavored to bear in mind the average High Schools and the average teachers which preside over such schools; and the longer I have considered the matter and the farther my observations have extended the more decidedly do I feel that the great *requisite* of scholarship, and hence the great *need* of our pupils is *study*—hard,

thoughtful, persistent, *rational* study. This is the path all our great scholars have trod; by which all great minds attained their greatness. And while they all have *enjoyed* the lectures of their instructors, and other incidential teaching, and have been benefited by them, no doubt they will tell you that whatever intellectual power they possess was not gained in this way, but by hard study, beginning at the text-book; and that although much study is a weariness of the flesh, yet it is the life and strength of the mind, aud that constant repetition, over and over again, is the only way to secure and have in control the *mental powers* within our reach.

Here I leave it for your discussion and decision, whether these results can be accomplished in our schools, with the class of pupils there found, as satisfactorily from lectures as from the text-book.

THE SANITARY CONDITION OF SCHOOL —HOW SHALL IT BE PROVIDED FOR?*

BY F. A. BRACKETT, BRIDGEPORT.

I need use no *argument* to prove the importance of the subject assigned for this paper. The question of health is always an important one, whether we consider it in its bearings upon the individual, the school, or the community. The greatest gifts of mind or of wealth are of little value without a healthy body with which to enjoy them. This subject is of especial importance to the young, for oftentimes *in youth* are sown the seeds of disease which bring suffering and early death. Habits are formed which entail weakness upon manhood and cause lifelong suffering. Thousands squander in youth the strength which should have been kept for the real work of life. "We are furnished in the beginning with a certain amount of vital force upon which we may draw." If we waste this vital force in childhood we shall have so much the less for maturer years. If we use it aright we shall have sufficient for a hale, hearty old age.

When we consider that every violation of nature's laws brings its punishment as surely as effect follows cause, and that continued violation brings pain, disease, and premature death; and when we consider that the future happiness or misery of an individual depends in a great degree upon the condition of the health, we begin to appreciate the importance of this subject. When we reflect that the human body is the most perfect and wonderful specimen of God's creative power, the abode of an immortal soul, with almost infinite capacity for happiness or woe, whose highest development is attainable only in a body in perfect health; and when we reflect that the moral welfare of this soul depends in a great degree upon the state of the body, we see still more clearly its vast importance. God has given us all important duties to discharge in life, and the ability to properly perform them will depend upon the manner in which we use the strength given us. We have no more moral right to waste our strength and shorten our life than we have deliberately to end it. Hence, it is our duty as teachers to do all we can to maintain our own health, and to prevent sickness and disease among our pupils.

How often, in visiting schools, we see scholars pale, languid, listless, with narrow chests and stooping shoulders, and faces prematurely old and careworn; and how often, in examining the record of attendance, we see absences marked "sickness," how often scholars come to the teacher, wishing to be excused from some lesson or other school duty, under the plea of sickness or indisposition, when it needs only a glance of the experienced eye to see that the excuse is a most valid one. We must admit that the sanitary condition of our schools is not what it should be. These symptoms of ill health and feeble constitutions are too apparent, these absences are too frequent, these headaches and illnesses interfere too often with school duties to admit a doubt upon this point. The question naturally arises, How far is the teacher responsible for this condition of affairs, and what can be done to improve the health of our pupils?

In answer to the first question we make this assertion: *The sanitary condition of the school depends much more upon the parents of the pupils and upon the school building than upon the teacher.* It seems to us that every candid, thinking mind will admit this. The scholars are in school, under the care of the teacher, only five or six hours a day, and he has no direct control over their habits out of school, except by the moral influence he may exert and by the instruction he may give. He cannot force them to sleep in large, well ventilated rooms; to eat nourishing, easily digested food, at proper times only and in proper quantities; to observe proper hours of sleep and exercise; to keep the person clean by a judicious use of soap and water, or to avoid unnecessary exposure to heat, cold, or wet. He cannot prevent excesses in eating and drinking, playing and working; nor can he prevent the formation of habits which injure or destroy the health.

* Read at the Annual Meeting of the Connecticut State Teachers' Association, October 23, 1874.

It is no fault of the teacher that these excesses, and exposures, and evil habits are followed by headaches, and colds, and sickness. I presume, if we knew the causes of all the illnesses among our pupils, we should find that nine-tenths of the sickness might easily have been prevented by proper care on their own part, or upon the part of their parents. That headache was caused by the mince-pie eaten in the evening, or by remaining at the party until midnight the night before; that cold was caused by getting heated with exercise and then sitting in a draft; that sore throat was brought on by not changing the wet boots and stockings; that "bilious attack" was the result of too rich dinners; and so on through the list.

Although we find so large a number of scholars sick, or indisposed, I think we shall find the proportion in the community still greater. How rarely do we find a man or woman who can truthfully claim perfect health. Almost every one has a weakness somewhere; is subject to headache, or sore throat, or indigestion. Think over all your acquaintances, and how few do you find who have perfectly sound bodies? How many have weak lungs or stomachs, palpitations of the heart, weak backs, weakness, lameness, or pain somewhere. The children inherit these things from their parents or grandparents, they copy their habits, they eat the same food, drink the same drink, breathe the some air, and live in the same houses. These are things over which the teacher has no direct control, but they exert more influence upon the health of his pupils than does the course pursued with him during the few hours of school. A very careful examination of this subject leads us to the conclusion that the sanitary condition of school corresponds very nearly with that of the community in which it is located.

The school building and its location exert a great influence upon the health of the scholars. Very many of our schoolhouses are built without any attempt at ventilation, or if an attempt is made the means are so inadequate that most of the ventilation comes from the cracks about the loosely fitting windows and doors. Dr. Brown, a noted chemist and physician of Washington, D. C., speaking of ill-ventilated schoolrooms uses the following language: "The imperfect ventilation of schoolrooms is an evil whose consequences can hardly be measured, and they are the more to be dreaded because their effects are of such a character as seldom to occasion immediate alarm. The direct consequence of breathing air containing a mixture of carbonic acid below the point producing a sense of suffocation, is to oppress the brain with a feeling of languor and dullness, followed by an almost irresistible desire to sleep. In this condition neither pupils nor teachers are fit for duty, In a room twenty-five feet square, fifty pupils will breathe all the air it contains in a little more than two hours. After the first hour, the time spent is worse than wasted." During the cold months, the teacher has his choice to compel his pupils to breathe this foul air, and thus bring dullness, sleepiness, and headaches; or, by opening the windows expose them to drafts of air and the danger of taking cold, with the possible concomitants of sore-throat, influenza, or lung-fever.

In addition to this ill-ventilation or want of ventilation, many of our schoolhouses are improperly or insufficiently heated. Coal stoves consuming as much coal as a dozen furnaces, and permitting a fire-escape of carbonic acid and carbonic oxide, are thought *good enough.* It is a wonder that the ill-effect of such heaters is not made apparent more frequently, by such accidents as one which occurred not many months ago in our own State, by which several scholars were made wholly insensible and nearly lost their lives. The products of combustion are deadly poisons if breathed in any quantity, and experiments have proved beyond a doubt that cast-iron stoves cannot be made so tight as to prevent their escape: that fatal poison carbonic oxide will even pass through the pores of the iron itself when heated to redness. These things prove conclusively that coal-stoves in the room are not proper means of heating. In many houses during the coldest weather, it is impossible to heat the rooms comfortably, and the scholars are obliged to sit shivering in their seats, all the while taking cold. At such times, of course, no doors or windows can be opened to secure ventilation, and the scholars breathe the air long after it is wholly unfit for use, thus being exposed to a double danger.

The location of the schoolhouse has also an influence upon the health of the scholars. Low, marshy ground, stagnant water, lack of sunlight, and proximity to any place from which malaria or unhealthful effluvia may arise, will tend to produce disease and death.

From what has been said, some may infer that I conceive the sanitary condition of a school to be entirely dependent npon outside influence, and upon well-ventilated and properly warmed rooms. At the outset I took the position that *more* depends upon these things than upon the teacher, not that

nothing depends upon him. I admit that he *can* and *should* do much, by care and watchfulness, to preserve and improve the health of the pupils, but he cannot wholly counteract the evil effect of these things which are constantly tending to break down the health.

The second part of our question: "How shall the sanitary condition of our schools be provided for?" now demands our attention. I presume there is no subject connected with every-day life upon which the mass of the people are so ignorant as upon the subject of hygiene. To quote the words of a recent writer upon medical science: "When I write upon the ignorance of the country upon matters of science, I know not where to begin or where to end. This ignorance is not confined to the lower classes; it is even more prominently observed and injuriously felt among the educated and influential. Clergymen, editors, and public teachers, who know all subjects better than they know about the science of life, are expected and required to pronounce upon the right or wrong of questions about which they know comparatively nothing. Parents and guardians who have never themselves been properly taught concerning the structure and functions of the human body, are obliged to train up their children to the same dogmas and prejudices by which they themselves have been inspired. Is it surprising, therefore, that our children grow up in error? If our teachers and the teachers of our teachers know little or nothing of themselves, what shall we say of the mass of the people?"

Admitting that the condition of our scholars depends in a great measure upon their parents, and that there is this lamentable ignorance on their part, it is our duty to do all we can to diffuse among the people a knowledge of the laws of health, and the means of preserving it and preventing disease. We cannot hope to do much to enlighten the present generation of parents, but I am sure we can do something. The public schools do exert an influence upon the community, and if we are faithful in teaching our pupils the great importance of all matters pertaining to health, we shall find that they will speak of these things at home, and thus the parents will be led to think of the subject. In this way a little good may be done. If the teacher is thoroughly in earnest, he can do much to awaken the interest of the parents and to turn their attention in this direction. The fact is, the parents have never given the subject any serious thought. They do not realize that every sickness and every disease is produced by some violation of nature's laws. They have an idea that sickness comes and goes without any particular cause, that it is somethimg which can seldom be avoided, and which must be borne with patience, *or impatience*, as an affliction brought by Divine Providence. Because they see no permanent result from a single violation of nature's laws, they think such violation is of no consequence, and do the same thing again and again, until they find to their sorrow that nature is not to be trifled with. Let us then do all we can to enlighten the people upon this all-important subject. Let us bring to our aid the public press, the popular lecture, and every possible means of diffusing this precious knowledge.

The sanitary condition of school is to be provided for, *secondly*, by building suitable houses, with rooms of proper size, having ample means of ventilation, and a heating apparatus sufficient to warm them comfortably, even in the coldest weather, and with seats in which the scholar can sit with comfort and in a *correct* position. In constructing school-houses, it is false economy to occupy as little space as possible upon the ground, and to build as high as possible in the air. I think scholars in delicate health, especially girls, have been injured for life by climbing several long flights of stairs three or four times a day. For this reason—to say nothing of the loss of life in case of fire—I would not build houses more than two, or at most three, stories in hight. The rooms should be large, and so arranged as to admit the sunlight during some part of the day.

Seeing as we do the importance of providing properly built, properly warmed, and well lighted school-houses, and knowing the importance of a healthful location, it becomes our duty as teachers to use all our influence to secure these things. It is not my intention to make suggestions as to the *manner* of constructing houses to secure them, but rather to impress upon you their importance. It is not only your duty, but the duty of every parent and of every citizen to do everything in his power to promote the welfare of our public schools. Might not a law be enacted by the legislature requiring the location and plan of every school-house hereafter built, to be approved by the local Board of Health, or by some board appointed by proper authorities, and making it illegal to occupy any house for the use of a public school until approved by such board? It seems to me that this subject is one of sufficient importance to make it right that it should be controlled by legislation.

It is necessary, thirdly, in order that we may

properly discharge the duties indicated above, viz.: enlightening the people, and securing proper school-houses, that we ourselves be thoroughly informed upon the subject, that we may be *competent to teach and to advise.* I think I speak within bounds when I say that of all the branches taught in our public schools, there is not one in which the average teacher is so wofully ignorant as in Physiology and Hygiene, and there is not one which will exert as much influence upon the future happiness and usefulness of our pupils. We should make it a subject of special thought and study, and not be content with a little *general* information upon it. We should do this for our own sakes, that we may preserve our health and thus be able to discharge the trying duties of school with ease and comfort; and we should do it for the sake of our pupils, that we may help them form correct habits of living.

It is the duty, *fourthly*, of school visitors to grant certificates to no persons who have not passed a *satisfactory* examination in Hygiene, and given satisfactory evidence that they understand the general management of a school in regard to ventilation, heating, etc., and that they will avoid those errors into which teachers so often fall. It is also the duty of school visitors to *insist* upon it that this subject is taught systematically in all the schools under their supervision. In some States, Massachusetts and Indiana for instance, the law demands that Hygiene be taught in all the common schools. Such a law should exist in every State.

The health of our pupils should be provided for, *fifthly*, by care and watchfulness on the part of the teacher. We cannot watch our scholars too closely; we cannot be too earnest in impressing upon them the importance of forming correct habits in youth. I will give a few hints in regard to the general management of the school-room, and point out a few errors into which teachers are apt to fall. First, in regard to the *temperature* of the school-room. During that part of the year when the doors and windows must be kept closed, and a fire is required, the thermometer should indicate about 67°. If the room is much cooler than this it will be uncomfortable, and the scholars will be liable to take cold; if it is warmer we shall find the scholars listless and uneasy, and disinclined to study; and when they leave this warm room for the cold air outside they will contract colds, unless many precautions are taken. This subject of the temperature of the room is quite an important one, for by not giving it sufficient attention much valuable time is lost and much discomfort and illness produced. Every school-room should be provided with a thermometer, which should be placed in a position to indicate the average temperature of the room. It is not safe to trust to our own feelings, for, owing to various causes, they are not a safe guide.

Of *ventilation* I cannot speak too earnestly. See to it that after school at night your room is thoroughly aired; do not let the impure air which will be likely to fill the room then, remain and await your coming in the morning. Do not keep your room tightly closed many minutes after the opening of school, and air as thoroughly at recess as you can without lowering the temperature too much. In the average room, with the average number of pupils, the supply of pure air is not sufficient to last much longer than half an hour. If no means of ventilation were provided in the construction of the building you must resort to the windows and doors. Choose the window farthest from the scholars, and, if possible, on the side of the room opposite to the direction of the wind, and open it an inch or two at top and bottom; care must be taken not to let a draft of air come upon the scholars. If any of you are so unfortunate as to teach in such a house, go at once to your committee and talk ventilation to him until he does something for you. Have a ventilator put into the top of the room, and bore some holes in the sides of the room near the floor; these will be much better than nothing. By all means, ventilate in some way, even at the possible risk of taking a slight cold; that is not so bad as breathing impure air day after day, and week after week. School-rooms should be thoroughly *swept* and *dusted* every day, for dust is a prolific source of disease of the lungs.

Scholars are much inclined to assume improper and unhealthful positions while sitting. Do all in your power to have them sit erect. Tell them that they will tire much sooner while lounging upon the desk than in an erect posture. Point out to them the danger of becoming round-shouldered, and show them the impossibility of full, vigorous health in such a condition. It is well to appesl, also, to their pride in having a fine figure and erect carriage, and in presenting a pleasing appearance. I have found that oftentimes girls will fall into the habit of wearing a shawl or cloak in the school-room, even when the room is comfortably warm. The teacher should insist upon it that all these outer garments be laid aside, for the scholars need more clothing when they go into the cold outside air. Boys, also, will come into the room with mufflers about the neck; do not allow them to wear them. Never permit

scholars to wear rubbers in the school-room, for they retain the perspiration and make the feet damp, and, as a consequence, the feet will be cold. Scholars often bring fruit and nuts to school to eat at recess. The older scholars ought not to eat between meals. Quite young children need food more frequently, and possibly it may not harm them to eat at recess. Do not require your classes to stand too long at recitations. The practice of having children stand half an hour or longer in one position is exceedingly cruel, and sometimes does permanent harm. Of school gymnastics I shall say very little. If properly conducted it will without doubt have a good effect upon the health of the scholars, but in practicing many precautions are needed. In a warm, close, unventilated room it is worse than no exercise; and with the present style of female dress there is not enough freedom of motion for the girls to derive much benefit from its practice. Fifteen minutes of foot-ball, or leap-frog, or cross-tag at recess will do the boys more good than twice that time spent in gymnastics in the school-room; and a brisk walk or exercise with the bean-bags is quite as good for the girls. In pleasant weather the scholars ought all to leave the room at recess to take some exercise and breathe the fresh air. Teachers should avoid, as far as possible, detaining scholars, and should under all circumstances allow them to leave the room sometime during the session. Encourage them to diligent work during school hours, that there may be no need of study during recess.

It is the duty of every teacher in every grade of school to instruct his pupils in Physiology and Hygiene. Even the scholars in the primary rooms may be taught much that they can understand, and which will be of incalculable value to them in after years. In the higher grades it should be a study pursued by all the scholars as much as Reading or Arithmetic. Oral instruction should be given in those departments where it does not seem expedient to use a text-book. We cannot impress upon them too strongly the great importance of *regularity of habits, abundance of exercise, and scrupulous cleanliness.*

In conclusion, I cannot urge upon you too forcibly the importance, in a *sanitary* point of view, of making the school-room a pleasant, cheerful place—a place which the pupils love, and from which it is a hardship for them to be kept away. Keep them interested in their work, and *make* them work. If they do it cheerfully there is little danger of overstudy. With the cry of the present day that the pupils in our public schools are injured by too much study, I have no sympathy whatever. Where there is one scholar who is injured, there are hundreds who might work much harder than they do. Statistics show us that mental labor, with proper care, is conducive to longevity.

THE SPHERE OF THE HIGH SCHOOL.

BY PROF. H. N. DAY.

It is convenient to recognize three generic kinds or grades of culture. The first is *general culture*—culture for the entire body of the people, to be enforced by the State—typified in the Public School. The minimum of attainment here is that well marked out by the late Edward Everett: "to read the English language well; to write with dispatch a neat, legible hand, and be master of the first four rules of arithmetic, so as to dispose of at once, with accuracy, every question of figures which comes up in practice." It embraces the three fundamental R's—equally needful for all pupils whatever may be true of their further progress, and also for all subsequent studies. This, as Mr. Everett says, is a good education. For, it should be borne in mind, the attainment of this degree of training must of necessity have drawn along with it a relatively vast collateral training, richer and more valuable, perhaps, than the three acquisitions in themselves, a training which consists in awakening the intelligence, stimulating curiosity, and opening out to view the various fields of knowledge, revealing profitable outlooks into geography, history, natural science, and government. These three attainments constitute the minimum of general culture in the public school. It is a question worthy of consideration whether, instead of prescribing so much time in schools or in connection with it, the State should not prescribe an examination in these studies in all public schools, for having passed which a formal certificate should be given to serve not only as evidence that the law in regard to the amount of training has been complied with, but also, and more especially, as evidence of fitness so far for citizenship and other functions in social life.

The maximum of attainment to be arrived at in the public school would be marked by the line which separates it from the College—in which is typified the second grade of culture, familiarly recognized as *liberal* culture. The third grade is the *professional*, typified in the University.

These three grades of culture—general, liberal, professional, are distinguishable by clearly defined characteristics, and are typified in three distinct classes of institutions—the public school, the college, and the university.

But culture is continuous; each lower grade anticipates and merges into the next higher, as bud into flower and flower into fruit, and as boy into youth and youth

into manhood. In each of the graded districts described there is the rudimental and the ever more and more proficient up to the highest degree attainable in it. Every citizen should reach the first degree; but the numbers reaching the subsequent degrees fall off steadily to the last, which only the few, the very few, attain. It is the true policy of a people to push, or draw, if this term be preferable, the largest number into the highest and fullest proficiency practicable, and this in each grade of culture and in each kind of institution. The rudimentary or primary school, the characteristic "three R" school, should be supplemented, as density of population will allow, by the higher and the still higher until the highest in the public school class, the proper high school, is reached. This, as to its special sphere and function, it is the more special design of this paper to discuss.

The general features of the high school are shadowed out in what has been already said—its relation to the public school education as its culminating grade on the one hand, and to the college or school of liberal culture on the other. Its rise or genesis will be out of the public school just as fast as there are numbers of pupils sufficient for a full organization—the minimum of members being say one hundred, or one hundred and fifty, and the maximum four or five hundred.

The character of the instruction will be general, neither liberal nor technical or professional. It will be preparatory for both; but shaping more into the liberal than the professional. For generally we believe it will be found that the best education of any grade will, on the whole, be the most complete and satisfactory if it be conceived and planned as ever germinant into a higher and richer and better, and not in any case as a proper conclusive and consummative. The very idea of education as the instrumentality for effecting a continuous growth and evolution seems to involve this notion of it as ever proper germinant and anticipative, never perfective in the absolute sense.

In order to shape out an ideal of a high school, we shall need to conceive one in conditions favorable to its highest perfection. These are a population convenient for maintaining an attendance, we will suppose, of three hundred, and a school system capable of suitably preparing this number for admission. Experience and, we think, enlightened reason, dictate a course of four years. We will take as the usual school age for it, that of from thirteen to seventeen.

In regard to the course of study, we conceive that these general features should characterize it.

In the first place, it will keep up and carry forward in direct line of progress the studies of the preceding grades by prescribing reviews, maintaining general exercises, and in selecting text-books.

In the next place, while the predominant character of the training will be general, and not technical or professional, optional studies should be introduced on systematic plan, both to permit full employment to those who may be capable of pursuing more than the regular amount of studies, and also to prepare better for the future of the scholar-life. Here may be distinguished three classes of pupils: the large class who propose neither a liberal or college culture nor desire training for any special pursuit; a second class, to be prepared for the college; and a third class, whose studies may have a somewhat technical or professional shaping. With a general ground-plan on which the training of all shall rest, for a third or even a larger part of the later studies, special courses may thus be instituted which shall be distinguished generally from one another, as English, Classical, and Technical. In this last mentioned special modification of the general curriculum may be embraced, fuller preparations in training for the diverse skilled industries, such as advanced studies in applied mathematics and in the physical sciences and also extended practice in mechanical and object-drawing.

Such is our ideal of an American High School; the culminating grade of the public schools; to be instituted whenever a sufficient number of properly prepared pupils can be supplied; with a four years' course planned for a school-age of from thirteen to seventeen; and to prepare for an intelligent entrance upon public life generally, and also for the college course and for undertaking technical studies.

THE TRANSIT OF VENUS.

Fair Venus, in primeval days,
Made many a "star" sensation,
And oft, in unexampled ways,
Attracted observation.
In stepping on life's stage at first,
She raised no slight commotion,
As, robed in white sea-foam, she burst
All dripping from the ocean.

Nor less, when, in her beauty's prime,
Great Jove she would not favor,
And he, to spite her for the crime,
As bride to Vulcan gave her;
While she, to have her own sweet way,
The ugly blacksmith quitting,
Eloped with gallant Mars one day,
Thus even Jove outwitting.

And, since she's left Jove's jealous heaven,
And broke with Mars alliance,
To shine our star of morn and even,
And aid onr mundane science,
She's oft the same old aptness shown
To stir unwonted fervors,
And proved, in many a thing she's done,
The observed of all observers;—

In many a thing—but chiefly one,—
One matchless feat of daring;—
She's walked right straight across the sun,
And set the whole world staring.
In sooth, this very month, once more
That feat will be repeated;
She'll walk right o'er Sol's furnace floor,
However hot 'tis heated.

Nor swerve will she one single hair,
  Nor lisp one word of protest,
But march right on, and coolly dare
  Fierce Sol to do his hottest;
Yea, undismayed, she'll linger there
  Full four long hours together,
Serenely basking in the glare
  Of central solar weather.

But ah! the change, to mortal sight,
  She'll suffer for her folly!—
Her form, from bright with beauty's light,
  Turned black as Melancholy!—
Jet black!—on Phœbus' flaming disc,
  A dead, round, rayless cinder!—
Alas! that she should run such risk!
  That no kind friend should hinder!

Yet, naught in this can Science see
  But ground of jubilation;
A fig cares she, though Venus be
  In peril of cremation,
If, haply, so men come to know
  That paragon of facts,
Which takes all cosmic facts in tow,
  The solar parallax.

And this to settle, lo she makes
  What stir among the nations!
What unexampled zeal awakes
  In transit observations!
Dame Venus surely, aided so,
  Will shame all past occasions,
And make this long-expected show
  Her climax of sensations.

The seers, dispersing East and West,
  Have gone the wide world over,
To points where they, perchance, may best
  The parallax discover.
On lone antarctic isles the flag
  Of science proudly flaunting,
On tropic plain, and arctic crag,
  Their optic batteries planting,

They'll rake with telescopes the sun,
  Disperse his beams with prisms,
And belch from spectroscopic gun
  Their spectral catechisms.
They'll oggle Venus with lorgnette,
  Her every foot-print measure,
Nor cease their onset till they get
  The parallactic treasure.

A tableau Sol and Venus make
  Our eyes so seldom greeting,
Thousands of photographs they'll take
  Of that celestial meeting;
And o'er them, eager to explore
  The problem of the ages,
Long, long and patiently will pore
  The astronomic sages.

With piercing lens they'll scrutinize
  Each point and line, and measure
Around, across, and cornerwise,
  Each picture at their leisure.
Yea, all the aids of science bring
  From every land and nation,
To make the most of that rare thing,
  A transit observation.

Oh, scene of joy! oh, glorious strife!—
  All nations, on their mettle,
Contending, as for dearest life,
  The parallax to settle!
Each moving heaven, and earth, and sea,
  Ambitious to discover,
If just *eight eighty five* it be,
  Or less a shade, or over!

Oh, noble use of toil and gold,
  That seed of truth to gain!
More noble, e'en a thousand fold,
  Though fruitless they remain,
Than use them as the nations do,
  Too often, not in quenching
On earth the flames of human woe,
  But earth in slaughter drenching!

Then, thanks, bright Venus, honest thanks,
  That so great good doth follow
The playing off of those rare pranks,
  Your raids on old Apollo!
Yea, special thanks for boon so rich
  To astronomic science,—
A promised parallax, in which
  Mankind can place reliance!

C. S. L.

New Haven, Dec. 4, 1874.

THE SCHOOL OF EXPERIENCE.

Happily there is a school, a hard school, with stern, uncompromising teachers, in which many of the errors of early education are corrected; and that school in which the life-long work of education is carried on all must attend. Willingly or unwillingly, the school of experience we must attend. Some of us learn indifferently well the useful lessons taught there, some of us are dullards, who never advance; some of us are apt and attentive; and, as in all schools, those who learn readily are quickly promoted. How to learn in this hard school is the great art of living. People speak of this school, most erroneously, as being open only to those who have passed the bounds of childhood; but the baby when it bumps its head has taken its first lesson in the school of experience; and if this important truth were only recognized, there would be less of the folly of attempting to teach experience by proxy. "Experience is no more transferable in morals than in art," and the earlier a child is permitted to acquire for himself that which no one can transfer to him, the better—the more readily will he learn, the more permanent will be the lessons.

Especially is this true of girls, or rather especially is it necessary to insist upon this in regard to girls; for to put a girl early to the school of experience requires us to deny our tenderness somewhat. It is so natural to hope that our dear-bought knowledge in that hard school may suffice for all her

needs, at least until she is old enough to learn for herself; which is exactly like saying no one should go into the water before learning io swim.

—"Home and School," Louisville, Ky.

MISCELLANY.

NEW COLLEGE FOR YOUNG LADIES.

It gives us special pleasure to be assured of the early opening of the new college for young ladies—Smith College, located in Northampton, Mass. We gather the following particulars from a circular lately issued:

"Smith College was founded by Miss Sophia Smith, of Hatfield, Mass., who in her last will and testament bequeathed a large sum of money for the purpose, defined the object and general plan of the institution, appointed the trustees, and fixed the location in Northampton, Mass. The object of the institution, as stated by the founder, is 'The establishment and maintenance of an institution for the higher education for young women, with the design to furnish them means and facilities for education equal to those which are afforded in our colleges to young men.' This design of its founder the trustees intend to execute as literally as possible. They will endeavor to provide for young women a culture fully equivalent to that of our best New England colleges, and at the same time more carefully adapted to woman's physical and mental constitution. To this end the college has already been duly incorporated and chartered by the State, with full powers 'To grant such honorary testimonials, and confer such honors, degrees, and diplomas, as are granted or conferred by any university, college, or seminary in the United States.' The college is not, however, intended to fit woman for any particular sphere or profession, but to develop by the most carefully devised means all her intellectual capacities, so that she may be a more perfect woman in any position.

"In order to secure the higher culture which it is proposed to give, candidates for the first class will be examined in geography; the construction of the Engligh language, including orthography and orthoepy; general outlines of history; the Latin and Greek grammars; the Catiline of Sallust; seven Orations of Cicero; the first six books of Virgil's Æneid; three books of Xenophon's Anabasis; two books of Homer's Iliad; arithmetic; algebra to quadratic equations; and two books of geometry. Equivalents will be accepted. The course of study will extend through four years. During the first year the same studies will be required of all the regular students. After the first year elective courses have been arranged, designated respectively: Classical, Literary, and Scientific.

"Opportunity will be given to students, both before and after graduation, to pursue, under the direction of competent teachers, advanced studies in music, drawing, painting, and other branches of æsthetic culture. Students who are sufficiently qualified may enter the regular classes, and pursue with them, under the direction of the faculty, special studies in literature, art, and science.

"It is the wish of the trustees to realize as far as possible the idea of a literary family, in which young women may not only enjoy the best facilities for intellectual discipline, but may also receive a social refinement and culture, which shall enable them to feel at home in the best society, and to conduct themselves with grace and propriety in any sphere of life. This idea it is hoped to realize more fully by the plan of smaller families in separate cottages. To give, also, unity and variety to the social life of the institution, a large social hall has been provided for the purpose of bringing together, as often as may be deemed profitable, all the members of the college and their friends in social intercourse.

"The grounds of the college are both secluded and easy of access, and command one of the most beautiful prospects in the Connecticut valley. They have been thoroughly drained, and laid out under the direction of some of our best landscape gardeners, so as to give oporutnity forwalks, drives, archery, boating, and out-of-door sports. One large building has already been erected which will be exclusively devoted to the educational work of the institution. In this building are the lecture and recitation rooms, the art gallery, cabinets, social hall, reading room, laboratory, and offices for instructors. Great pains have been taken to avoid numerous stairways—the building being only two stories and a half high—and to arrange the light, ventilation, and heat in accordance with the laws of health. Around this academic building the trustee will group, as rapidly as may be needed, cottages in which young ladies may be associated in comparatively small families, under the care of competent matrons or instructors. It is hoped by this plan many of the evils attending large dormitories may be avoided.

"The price of tuition for all students, regular or special, will be $100 a year. This includes the use of the laboratory, cabinets, lecture and reading rooms, and the pleasure grounds of the college, and covers all expense of instruction except private lessons in music, drawing, and painting. The price of board in the cottages of the college will be from $5.00 to $10.00 a week, according to the accommodations. For those who prefer a fixed and definite sum, the college will provide good board and rooms, including all expense of heating and lights, for $300 a year.

"The college will open for the reception of students the second Thursday in September, 1875. The college year will be divided into three terms. The winter vacation will be two weeks; the winter term twelve weeks;

the spring vacation two weeks ; and the summer term will close the third Wednesday in June."

Under the direction of the president, Rev. L. Clark Seelye, late professor of Rhetoric in Amherst College, we are assured that the high ideal proposed will be attained as fully as human wisdom and energy can effect. We feel no misgivings as to the final success of the undertaking. But time is requisite for maturing all good things that have life. The number of students at first will, of course, be smaller than may be reasonably expected afterwards, by reason of the present need of preparatory institutions. It is to be hoped that our academies and high schools will be induced to do a more effective work in preparing for this higher education We have before expressed our convictions of the necessity of bringing the students of our larger colleges for ladies under a connected roofage. If, however, music and fine-art culture are to have but a very subordinate share of attention, as the course of study seems to indicate is to be the case, the cottage plan may work. But if, as has been the experience of similar institutions, a half or more of the students are to be instructed properly in music, and in drawing, and painting, we are confident that the advantage of a single building or of connected buildings will far more than counterbalance all the incidental evils. We notice that the aggregate term time proposed is thirty-six weeks in the year. This undoubtedly is sufficient. If two of the three vacations were to be replaced by a recess of eight or ten days, covering the Christmas and New Year holidays, and three weeks added to the long summer vacation, we are convinced a full week of effective study would be gained. We repeat our expressions of gratification at this great accession to the instrumentalities of higher female education ; and earnestly desire, as we expect, incalculable benefits to flow from it to the interests of higher intelligence and culture.

THE NECESSITY OF REMODELING THE COURSE OF INSTRUCTION.

The *Atlantic Monthly* has in its last number a very sensible article on Education, founded on the reports received from superintendents of public instruction throughout the country. The following observations on the necessity of remodeling the course of instruction, introducing into it a true method that shall have respect both to the mental maturity of the scholar and also to the character of the text-book both intrinsic and relative to other studies, are particularly worthy of attention :

"The truth must be told. If there is such a thing as a balance of the faculties, and also a natural order for their unfolding, and if it be a consummation devoutly to wished that such education as we have should observe this order and preserve this balance as far as it goes, then we are obliged regretfully to state that the indications we glean from these reports are nothing at all of this, but are rather of a public school system strangely unsymmetrical, and calculated to develop a warped and ill-proportioned national mind and character. The great question of what to teach—the vital question, of course, in planning a scheme of education for the masses, and the one before which all others pale —is but little dwelt upon by those highest in authority over our own. They seem the administrative officers of a system established and settled beyond peradventure, rather than the gradual reformers of one which now for a long time has been going contrary to the dictates alike of common-sense and of enlightened experience. When five-year-old tots are taught in the city of Boston that 'the letter E is composed of one perpendicular and three horizontal lines,' American pedagogy must be far on the road to absurdity. Such are its obvious defects, indeed, that to our thinking it is much to say for it tha it has given the people intelligence enough to be dis satisfied with it—and of this we find abundant evidence when we turn to that portion of the reports furnished by the school committees and town superintendents.

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"Of the seven million two hundred thousand pupils in the schools of the country, seven millions go no further than the grammar schools ; and parents are finding out that after six or seven years spent in the dry and narrow curriculum of the grammar classes, namely, reading, writing, spelling, grammar, arithmetic, and geography, the majority of their offspring leave school at fourteen knowing very little of even these few poor studies, and nothing of all the worlds of nature, of humanity, or of skill. 'Too much grammar and arithmetic' is rapidly getting to be a popular cry, and it is one that the universities will echo ; for so far as we can gather, the leading mathematicians and philologists of the country maintain that these studies are not only overtaught in the public schools, but are taught in the worst possible way."

What is needed is the general adoption of an ideal of public instruction as to its aim, its degree, its method. Helpful to this is a recognition first, of the leading grades distinguishable in education, in which the limits of proper public-school education shall he sharply delineated. Then the graded departments of the public school instruction should be determined in reference to density of population or sufficiency of pupils to fill the higher departments. Finally a truly methodical system of instruction should be devised, reaching through each up to the highest department.

'52, SPRAGUE.—Col. Homer B. Sprague, formerly professor of the State Normal School, but more recently of Brooklyn, N. Y., has been elected to fill the vacancy in Princeton College, caused by the resignation of Dr. J. S. Hart, professor of Rhetoric.

THE CONN. SCHOOL JOURNAL.

Office, No. 7 Insurance Building, opposite Park.

NEW HAVEN, CONN., DECEMBER, 1874.

VALEDICTORY.

With this number the separate existence of THE CONNECTICUT SCHOOL JOURNAL ceases, and in common with the other State journals published in New England, it becomes merged in a new weekly paper, *The New England Journal of Education.* The wisdom of this change has so commended itself to the good judgment of most of those connected with the several papers named, that they have accepted it with great unanimity and harmony.

The necessity of a *weekly* educational paper in these stirring times has been impressively felt. There has been a growing conviction that New England ought to be represented in the educational field by *one strong, live* paper. To that end it has been found desirable to *unite* the interest and energies of educators in a paper whose influence shall be more powerfully and widely felt than that of the local school journals could reasonably be expected to be.

The omens are favorable to the new enterprise. It is inaugurated in obedience to the earnest wishes and with the cordial approval of the leading school officials and prominent teachers of New England, and under the auspices of the American Institute of Instruction.

It is to be under the editorial management of that popular educator, Hon. Thomas W. Bicknell, of Rhode Island, who resigns the office of State Superintendent of Instruction to take charge of this paper. It is to be a *weekly* paper, and its educational news will be fresh and timely. Its editors and contributors will be *paid* for their services, and will be able to devote their time and energies to the work of making a good paper.

We congratulate our readers, and teachers, parents, and all interested in education, on the prospect before them of a much better journal than we have been able to give them. We bespeak for the new paper a generous patronage in our state.

As the pleasure we have derived from laboring for the JOURNAL has always been seasoned with regret that—burdened as we all have been with other duties which claimed our *first* attention—we have not been able to give our *best* efforts to our readers, so the pain we naturally feel at now parting from them, is softened by the satisfaction of believing that the work we have tried to do for them will be better done by others, under happier auspices.

I. N. CARLETON,
W. B. DWIGHT,
MARK PITMAN.

IT is a matter that affords us some gratification, —and we believe our readers will sympathize with us—that the publisher of the CONNECTICUT SCHOOL JOURNAL, C. C. Chatfield, Esq., is selected as the publisher of the new *New England Journal.* The editors understand, and some of our readers also, that the *existence* of this JOURNAL during the last three years has been in no small degree due to the business tact and judicious management of Mr. Chatfield in the publishing department. We are glad the pnblishing of the new journal is entrusted to a gentleman of so much experience, enterprise, and ability, and we wish him abundant success.

MR. F. CRAMER, of Toledo, Ohio, has devised an arrangement for overcoming the difficulties of learning to play the piano or organ. By the ordinary method as much practice is required to master each separate scale to which the pupil is introduced as to master the first. By the device of Mr. Cramer, the labor and practice are reduced to the mastering of one scale only. It is claimed that his invention will greatly popularize the science of music, and revolutionize the methods of teaching. We are skeptical.

THE *Atlantic Monthly* for December contains an interesting note on a method of instruction which has been in use in Paris for more than sixty years, where it has met with increasing favor. The method was founded by M. Colart, and is continued with great success by M. Remy. M. Remy meets his classes once a week only, for a session of two hours. During these two hours, so careful and exhaustive an examination is made of the lessons in hand, that the pupils find it necessary to occupy from three to five hours a day during the week in preparation, with the aid of private tutors or parents. The governess, or parent, invariably accompanies each pupil to the recitation, and it is quite a common occurrence to see *both* parents present, scribbling away at the answers to the questions proposed, with as much diligence as the pupils them-

selves. The recitations are conducted chiefly in writing. The questions are proposed orally by M. Remy. His lady teachers, passing from pupil to pupil, inspect the written answers as the work goes on, and mark their value in the grade-book. The professor does not confine himself to the formal questions of the text-book. The pupils are expected to look up by the aid of an encyclopedia, and other books of reference, all matters that will give a broader and fuller understanding of the immediate subject of the lesson.

In his practice M. Remy attains the utmost dispatch in the work of thorough and critical examination and instruction, and the most intense interest is kept up throughout the exercise. This mode of teaching puts the pupil and parent into a partnership in the business of acquiring knowledge, that must be full of profit and pleasure. It is truly an *educating* process. It avoids that "overcrowding" of the mind, which is one of the most crying evils of our systems of education. It makes it possible for the pupil to do her work when she is best able to do it; a thing which is impossible where *daily* recitations are expected in a half dozen different branches. Besides, how much more *lasting* must be the impressions received by the pupils, than where they are allowed to attend to one subject for twenty or thirty minutes only, and then are compelled to give their minds to a new subject, only to change again at the end of the next half-hour.

In the report of the proceedings of the State Teachers' Association, given in our November issue, it was of couse impossible to do full justice to the many excellent exercises of that meeting. For example, the exercise in singing by the pupils of the New Haven High School, under the lead of Prof. B. Jepson, was worthy of more extended notice than we found it convenient then to give. The peculiar excellence of Prof. Jepson's system, is that he makes the reading of music as simple an art, and one to be as readily and universally acquired as the *art of reading* itself. He expects the pupils in any grade of the schools under his charge to be able to sing, *at sight*, any exercise that can be written, involving only those principles of musical notation thus far studied by those pupils.

The pupils of the High School are supposed to be acqainted with all the practical principles involved in our common music books, and the exercises before the Association were designed to test their ability to sing, *at sight*, music of a somewhat difficult character. The result was a complete success for the teacher, for his system, and for the cause of music in the public schools. The pupils changed parts instantly at the command of the teacher, each section singing with equal readiness upon any part, thus indicating their perfect familiarity with all the clefs and scales.

The New Haven *Palladium* of the next day reported the exercise as follows:

"At the opening of the general meeting in the large hall, at three o'clock, the room was crowded. A large space was reserved in front for the pupils, who filed up to their places, through the aisles, to the music of a march. H. C. Davis, principal of the Skinner school, presided. The special exercises were in choruses and sight-singing, under the direction of Professor B. Jepson, instructor in vocal music in the public schools of this city. This exercise was similar to that usually performed in the daily exercises of the school. The exercises in choruses from the old book were many and varied, the rendering of solfeggios, and especially one in B minor being very excellent. In fact, the whole exhibition was very creditable to the school, and to the accomplished and energetic director, Professor Jepson, under whose efficient management the pupils in the New Haven schools have received an excellent rudimental education. The value of this instruction cannot be over-estimated, and the children of this city are very fortunate in enjoying such exceptional advantages. No one of the pupils seemed to be without "an ear for music," and the exercises were undoubtedly powerful in dispelling the wrong impression which many have, that a large proportion of the human race are so faultily constructed that they are incapable of learning music or enjoying it. The performance was made complete and conclusive by singing from sight from an altogether new book. These books the pupils had never seen before, and the bundle in which they had been brought from Boston was opened upon the platform. Immediately after they had been distributed the singing begun. There was but very little hesitation in execution, and the exercise strengthened the favorable impression already produced. An exercise on the black board was also readily sung."

We may add that an invitation was given to any one in the audience to come to the black-board and write an exercise for the class to sing.

We give thus much space to this subject, not simply to do justice to Mr. Jepson and his system—though we are very willing to do that—but because of the demonstration afforded by this exercise, of the practicability of teaching all the pupils in our schools to read music at sight, and the practicability of employing this powerful auxiliary in the education of our youth.

For it is generally conceded that musical culture refines and softens and elevates. Music is, un-

doubtedly, an aid to the teacher. It brightens the scholars, inspires cheerfulness, soothes irritation, and quickens dullness.

GEOGRAPHY is one of the branches of education that may properly be taught to young children. Not that young children can become scientific geographers; but in the early years of school-life they can and ought to acquire correct ideas of the *figure* of the earth. They can and ought to get the forms of the continents, and larger islands impressed upon the memory, with their relative positions. They should get the forms and locations of the principal bodies of water, the larger rivers, the more important mountain systems, *fixed* in mind. In a word, they should form such an acquaintance with the *figure* and *face* of the earth, that whenever they are thinking of it, in the *absence* of a map, globes, or pictures, there shall be a picture in their minds, just as there is a picture of the person and features of an absent friend whom they call to mind.

To secure this amount of geographical education should be the first great aim of the teacher. But by far the greater part of what the child will ever learn of the earth's face and form must be learned from maps and globes. He cannot make an extensive study of the surface itself. Hence the necessity of a kind of education, in the outset, that will prepare the child to receive from maps and globes the same impressions, and to derive from them the same ideas that he would gain from a survey of the objects which they are designed to represent.

This cannot generally be done by placing a book in the hands of the class at the beginning. The child must learn to recognize the objects themselves in nature. He must become acquainted, by some means, with mountain, island, lake, and river. Then by himself making maps or pictures of them, he must learn to derive from the pictorial or graphic representation, the same ideas that he would from the object itself if present.

Begin by studying the geography of the school-room. Make the pupil perfectly familiar with directions and distances of the various objects therein from each other. Have them *measure, measure, measure.* Let several days be given to this work. Then let them *map* the school-room, exercising their own judgments about the location of objects. Let them do it again and again until they can make a good, well-proportioned map. Do the same work with the school premises; then with the neighborhood; then, the county. Then study the map of the State. Next study a globe.

After two or three years spent in the preliminary course thus indicated, place a good text-book in the hands of the class.

ANNALS OF EDUCATION.

NEW YORK CITY.—The Board of Education are moving efficiently in preparation for the enforcement of the new compulsory education law, which goes into effect January 1, 1875. Principals and teachers are required to furnish the board with lists of pupils in attendance upon their schools. These are to be reported to the police to help them in their search for non-attendants. At a recent meeting the board passed a by-law admitting children to the evening schools at ten years of age, instead of twelve, as heretofore. The complete enforcement of the law in such an immense population is of course a work of great difficulty; but we can but anticipate important results from the effort to bring all the children of the city into the schools.

INDIANA. — Cary Carter (colored) living in Lawrence Township, Marion county—no school for colored children being within reach—claimed the right to send his children, who are of full negro blood, to the district school provided for white children. They were refused admission, whereupon Carter commenced suit against the school trustee, school director, and teacher, in the superior court of the county. The court at its special term sustained Carter. Appeal was taken to the general term, when the judgment of the special term was confirmed. The case was then taken to the Supreme Court of Indiana, where the judgment of the lower court was reversed. The colored citizens of the State are much excited over the matter, and it is probable that the case will be carried to the Supreme Court of the United States.

GEORGIA.—The public schools of Columbus own $22,500 worth of real estate, have the nucleus of a valuable library, and philosophical and chemical apparatus, full sets of school books, and are taught by fourteen white and five colored teachers. Number of white pupils in the schools last year, 1,092; colored pupils, 487.

TENNESSEE.—The State Superintendent reports that in *Nashville* the total number of white

males is 163,131 ; female, 153,398 ; colored males, 53,000 ; females, 50,852. The total school population 418,185 in 1873 ; 420,384 in 1874. Increase, 2,199.

MISSISSIPPI.—Gen. A. P. Stewart has been elected Chancellor of the University of Mississippi. General Stewart was assistant professor of Mathematics at West Point, and subsequently had charge of the Cumberland University, Tenn.

BALTIMORE, MD. — The school board has added German to the regular list of school studies. Four German-English schools are to be established.

We are indebted to the American Educational Annual, Vol. I., published by J. W. Schermerhorn & Co., New York, for the following items :

MONTANA.—The Territorial Superintendent of instruction is nominated by the Governor and confirmed by the Council. Salary, $1,200 and traveling expenses. County Superintendents, eight. School fund derived from interest on all moneys accruing to the Territory from land-grants. County Commissioners levy a tax of not less than three nor more than five mills to the dollar on all taxable property. Children of school age, 3,517 ; attending schools, 1,881 ; value of school-houses, $21,192.00.

NEW MEXICO.—At the beginning of the year 1874 there were 164 schools of all descriptions. Pupils in attendance, 7,102 ; teachers, 196 ; average number of months taught in each school, 7 ; 17 of these schools were English, 111 Spanish, and 31 English and Spanish ; public school fund, $29,721.57 ; private school fund, $27,100.00 ; Pueblo Indian fund, $4,000.00. The school fund consists of 25 per cent. of the entire tax on property, a poll tax of $1 on every male citizen above the age of five years, and "any surplus of more than $5.00 in the treasury of any county, after paying the current expenses of such county."

UTAH.—The school officers are the Territorial Superintendent of common schools, 20 County Superintendents, 606 Trustees, three for each district, and County Boards of Examination. County courts divide counties into school districts ; Trustees provide and keep in repair school houses, for which purpose they are empowered to assess and collect an annual tax of not more than one-fourth of one per cent. on all taxable property within their districts. Two-thirds of the tax-payers in any district may increase the tax for all school purposes to three per cent. They may also collect a tax of one per cent. per annum, to pay teachers and furnish fuel, books, maps, etc. The law neither authorizes nor requires teachers to inculcate religious tenets, but all teachers are advised to open their schools by prayer, and to inculcate the fear of God and morality by precept and example. School districts, 202 ; teachers (male), 177 ; (female) 178 ; school children—boys, 13,867 ; girls, 13,856 ; average daily attendance, 11,842.

WASHINGTON TERRITORY.—School officers, Territorial Superintendent, County Superintendents, School Directors—three for each district. Education is compulsory. County Superintendents divide their counties into school districts, examine teachers, and visit all the schools in their counties. School Directors employ and discharge teachers, build school houses, assess taxes when ordered, and visit the schools. The School Fund is derived from the sale of lands devoted to the Territory by Congress for school purposes. An annual County tax of four mills on a dollar is assessed for school purposes. Fines received for violation of the laws are devoted to the same purposes. School districts, 248 ; number of school children, 9,947 ; attending school, 5,728; amount paid teachers (1873), $44,007.94.

WYOMING.—Population about 10,000 ; pupils enrolled in the schools, 1,200 ; school districts, 27 ; estimated value of school houses, $40,000.00 ; amount of school fund, $30,000.00 ; total receipts for school purposes, $50,000.00. The Territorial and County Superintendents are required to hold a Teachers' Institute annually in May, to continue not less than four nor more than ten days. A uniform series of text-books for the whole Territory is decided upon at this Institute, and must remain unchanged for two years. A two-mill tax is levied annually in each county for school purposes. Education is compulsory.

WE make some additional extracts from the abstract of the Annual Report of the U. S. Commissioners of Education for 1873 :

RECOGNITION OF PUBLIC HIGH SCHOOLS.

In many of the States schools form the recognized and legal link between the grammar schools and universities. In many more they are rapidly assuming that work of preparation for university and college training which has been wont to be performed by pay academies. But in some parts of the Northwest the question of the right of States to carry free education into the high schools has been considerably agitated, and in Illinois and Michigan no little opposition to the exercise of such a right has been displayed.

In Michigan this opposition has based itself mainly on the asserted illegality of high schools, the law in terms appearing to make no provision for any but elementary and university education. It has hence been argued that, at the point where primary training ends, the university and its branches must take up the work, and that out of its funds only, or out of these with some aid from pay pupils—not out of the taxes for common schools—should come the means for sustaining secondary education. But as this, with partial local taxation for high schools, had been once tried and found impracticable, and as the funds allowed the university were barely sufficient for its expanding higher work, there was at one time obvious danger that the high-school link between elementary and superior training might be broken, and secondary instruction be relegated to the pay academies again. The matter was eventually referred to the supreme court of the State; and its decision, recently pronounced, is that high schools form a proper part of the educational system under the law.

In Illinois the opposition to these schools was based upon another ground, the alleged injustice of taxing the whole population for schools whose benefits are enjoyed by comparatively few, the answers to which objection are given in the report.

NORMAL SCHOOLS.

Hopeful progress is manifest in the growth of special schools for the training of teachers for our public schools. Statistics are given of 113 normal schools and normal departments, having 877 instructors and 16,620 students. Eleven of these were established or organized in 1873, the most notable being the Massachusetts State Normal Art School, "intended as a training school for qualifying teachers and masters of industrial drawing, its specific aim at present being to prepare teachers for the industrial drawing schools of the State, who shall also be able to direct and superintend the instruction in this branch in the public schools."

Within the past five years the number of schools established, wholly or in part devoted to training public school teachers, is 59.

KINDERGARTEN.

The appendix of the report contains information in respect to 42 institutes for Kindergarten training.

Testimony of Teachers.—All the reports received from teachers who have taken pupils from the Kindergarten mention the superiority of these children over others in their capacity for learning, owing to the careful cultivation of all their capabilities, particularly their observing faculties. They show great quickness of mental perception, and advance rapidly in the studies they undertake. The foundations of mathematical science are so well laid in the occupations and lessons of the Kindergarten that geometry will not be to them the dry, unmeaning study it is to most, but becomes an old, familiar friend when met with in the text-book.

THE CENSUS OF 1870 AND THE REPORT FOR 1873.

The number of instructors in all classes of educational institutions in 1870, according to the census, was 221,042; number of pupils, 7,209,938. According to the Commissioner's report there were, in 1873, in all classes of institutions about which information was obtained, 246,932 teachers and 8,723,945 pupils.

Book Notices.

A School History of Germany, from the earliest period to the establishment of the German Empire in 1871, with 112 illustrations and 6 historical maps. By Bayard Taylor. New York: D. Appleton & Co.

We are glad to see a history of the German race in a form so suitable for use in schools. The study is hardly less important to our youth than that of their own country. In his "Introductory Words" the author says, "The History of Germany is not the history of a nation, but of a race. It has little unity; therefore, it is complicated, broken, and attached on all sides to the histories of other countries. In its earlier periods it covers the greater part of Europe, and does not return exclusively to Germany until after France, Spain, England, and the Italian States have been founded. Thus, even before the fall of the Roman Empire, it becomes the main trunk out of which branch the histories of nearly all European nations, and must of necessity be studied as the connecting link between Ancient and Modern History. The records of no other race throw so much light upon the development of all civilized lands, during a period of fifteen hundred years." The style is simple and readable, and the arrangement clear and less characterized by interruptions and changes than might be expected from the nature of the subject. Judging from the few chapters we have been able to examine carefully, the author has aimed to be simple, without childishness; intelligible and accurate. Maps, illustrations, questions, chronological tables, and a key to the pronunciation of German words, make it a complete book for school or family.

The Elements of Physics. A Text-Book for Academies and Common Schools. By Sidney A. Norton, A.M. Wilson, Hinkle & Co., New York and Cincinnati. Wholesale price, $9.80 per doz.

This is one of the "Eclectic Educational Series" issued by these enterprising publishers, and is, of coûse, illustrated and printed in the best style. In

scope and size it is well suited to the work for which it is designed. That the author has endeavored to make a work fully up with the present state of physical science, is evinced by the chapters on "Modes of Molecular Motion," "Sound," "The Stereoscope," and "Spectrum Analysis," which are treated briefly and simply, as is fitting in a school book, but still with such clearness as to give the pupil a good understanding of the elementary principles of these subjects.

THE ELEMENTARY MUSIC READER. A Progressive Series of Lessons prepared expressly for use in Public Schools. *Book First.* By B. Jepson, Instructor in Vocal Music in the New Haven Public Schools. *The same, Book Second; the same, Book Third.* New York: A. S. Barnes & Co.

These books contain a course of instruction graded from the primary to the high school, *simple, systematic,* and *thorough.* In their revised form they have been before the public about two years. Within that time more than 40,000 copies have been printed, and they have found their way into every important city and town in Connecticut. They are already favorably known to a large number of the readers of the JOURNAL. For the results obtained by the use of the system embodied in them, we refer our readers to the notice, in another column, of the singing at the late meeting of the State Teachers' Association. The author has made an exhaustive analysis of the elements of music, and has presented those principles, one at a time, in their natural order, thoroughly exercising the pupils upon each principle before presenting the next. The result is that children are taught to read music by this system, as readily as they are taught to do anything else in school. We know of no other books that accomplish this object so perfectly.

THE SONG FOUNTAIN. A Vocal Music Book for School and Family use. By William Tillinghast and D. P. Horton, Teachers of Music in Brooklyn, N. Y., Public Schools. New York: J. W. Schermerhorn & Co., No. 14 Bond street.

The first 20 pages contain exercises in reading music, for the cultivation of the voice, etc. The next 50 pages are filled with a pleasing variety of glees and part songs. Twenty pages are devoted to "Devotional Music." The selections are made with evident good taste, and are excellently well adapted to the use of high schools and seminaries.

WOMAN IN SACRED HISTORY. By Harriet Beecher Stowe. New York: J. B. Ford & Co.; 1874.

We have here nineteen sketches of the prominent women of the Bible, drawn as only Mrs. Stowe can draw them, wherein characters ancient and remote are brought before us and made almost as real as those with whom we daily hold converse. It is a rare and rich collection of biographies, and is illustrated by sixteen chromo-lithographs, some of them copies of ancient and world-renowned paintings, others of modern oriental studies. A fine octavo volume, printed in clear, large type and handsomely bound, it is an exquisite gift for Christmas or New Year's.

A PRACTICAL AND CRITICAL GRAMMAR OF THE ENGLISH LANGUAGE. By Noble Butler. Louisville, Ky.: John P. Morton & Co.

Practical, in that it contains a rich abundance of examples and exercises for the practice of each new principle learned, and aiming to make its students *critical* by sharp discussions of grammatical questions, and by frequent exercises in criticising and correcting false constructions and inelegant expressions. The author has aimed to simplify the science of grammar. In the treatment of pronouns, infinitives, prepositions, conjunctions, and adverbs, the author departs somewhat from the usual beaten track, and teachers of grammar will examine the sections on these subjects with considerable interest.

RESUME OF ANCIENT AND MODERN HISTORY, from the Deluge to the present time. Designed to accompany Hawes' Chronological Chart of Universal History. By S. Hawes. New York: F. R. Reed & Co.; price, 50 cents.

This is a Syllabus of History, in 60 pages, very convenient for reference or study. The Wall Chart is 36 by 52 inches in size. A copy of the Chart reduced in size is appended to this little volume.

GRADED SINGERS FOR DAY-SCHOOLS.—The idea of musical study as a feature of the Public-School system, has already been agitated in our Western cities. In some places it has already been introduced as an element in current School Education, but there is a vast field for improvement in the method and process used in its study found in the Public Schools. What little instruction is given in the art is often crude, and without uniformity, and consequently but little interest is felt in the study by pupils. In this respect, among Western cities, Cincinnati and Chicago are making the most successful efforts. The standing of the Chicago Schools in musical progress is due to the graded system embodied in the series of "Graded Singers," by Messrs. Blackman and Whittemore. This series is in four books, graded as follows: No. 1 com-

mences the study of singing in Primary Department, carrying the pupil through lower grades, and occupying in the Chicago Schools about three years' time. No. 2 is adapted to Intermediate and District Schools, whether graded or not. No. 3 is a fine collection of music, arranged in three parts. No. 4 is for High Schools and adult classes of mixed voices. Teachers will find these books admirable for their work, some one of them being adapted to every pupil, from Primary to High School. "Graded Singers" are issued in board covers, price, 25, 50, 75 cents, and $1.00 respectively, and will be sent to any address, prepaid, on remitting the price to the publishers, John Church & Co., Cincinnati, Ohio.

Home and School for November contains several articles that will attract attention; notably, "The Geographical Expansion of the English Tongue," "The Education of Character," and the first chapter of a series of articles on Zoölogy, by the celebrated naturalist Edward Fontaine. Then there are a grammatical dissertation on the expression, "I feel badly," and a sensible talk on "Learning to Read," and a drama for a school exercise or for home theatricals, entitled, "The Old Cousin," which is adapted from the French play of Emile Souvestre, and a sprightly description in verse of a game of "Fox and Geese" between two bright little girls at school. There is a hint in the prospectus for 1875 that *Home and School* will be profusely illustrated next year. The publishers give a great deal now for the price, $1.50 a year, but when, in addition to what they now give their subscribers, they put into every number costly and beautiful engravings, without increasing the subscription price, *Home and School* will take the front rank of American magazines. Our readers should send $1.50 to John P. Morton & Co., Louisville, Ky., the publishers, for the year 1875.

The National Teachers' Monthly is the new Educational Journal, published by A. S. Barnes & Co., and edited by J. Mahoney, former editor of the Chicago *Teacher*. The first number (November), presents an attractive appearance, and is filled with able articles that will be read with interest. The publishers promise articles from contributors of the first rank in every state, and mean that the *Monthly* "shall at once take its place as *the very first* of its class." Among the measures to be advocated are State Colleges and a National University, co-education of the sexes, and the government of schools without the use of the rod. To all who subscribe before the first of January the price will be 75 cents; after that, $1.00.

THE NEW ENGLAND JOURNAL OF EDUCATION.

This new educational paper will commend itself to every live teacher. It will be ably edited—will contain about as much each week as any monthly—will have the best contributors and be thoroughly up with the times. We trust that every subscriber to this journal will take the New England journal. Its prospectus can be had on application to the publishers. All business letters relating to this journal should be addressed, after Dec. 25th, to 16 Hawley St., Boston, Mass. The subscription price of the new journal will be as follows:

1	Copy one year, in	advance,	including	postage,		$3.00
5	Copies,	"	"	"	each	2.80
10	"	"	"	"	"	2.60
25	"	"	"	"	"	2.40
50	"	"	"	"	"	2.25

There will also be clubbing rates with the leading monthlies and weeklies. As there will be a great demand for the first numbers, it will be necessary, in order to be sure of getting a complete file, to subscribe promptly before any number is exhausted. Address all communications to New England Journal of Education, 16 Hawley street, Boston, Mass.

DENOMINATIONAL EDUCATION IN ENGLAND. — In England, for the year ending the 31st of March, 1873, the total amount expended by the Education Department was £1,172,786, of which £106,889 must be deducted for administration, and £19,230 for organization of districts—making the total amount of the grants £1,046,677 of which sum the grants to the schools in connection with the Church of England were £757,859, or more than three-fourths of the total amount. The British and Foreign School Society's schools earned £143,512; the Wesleyans, £71,958; the Roman Catholics, £58,928; board schools, £14,287; and parish union schools, £120. The Church of England has built 315 new schools during the year; the British and Foreign Society 15; the Wesleyans, 2; and the Roman Catholics 6. Churchmen subscribed for the purpose of school building £347,580; the British and Foreign Society, £11,622; the Wesleyans, £2,460; and the Roman Catholics, £11,832. Between 1839 and December, 1873, the following results have been obtained. Of schools built there have been: Church of England, 4,888, at a cost to subscribers of £3,932,745; British, 205, at a cost to subscribers of £231,656; Wesleyan, 138, at a cost to subscribers of £154,402; Roman

Catholic, 73, at a cost to subscribers of £111,483. And providing accommodation for: in Church schools, 994,-251 children; British, 81,152 children; Wesleyan, 47,340 children; Roman Catholic, 27,759 children. The total number of children for whom accommodation at the established rate is provided is 2,582,549, of which the Church finds space for 1,751,697; the Dissenting bodies of all classes 543,558; the Roman Catholics, 162,-236; school boards, 125,058. The average salaries of teachers are:

	Masters.	Mistresses.	Infants' Mistresses.
Church	£98 14 11	£61 8 2	£59 4 7
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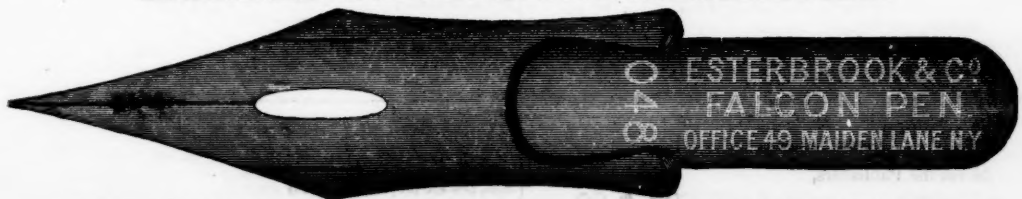

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